

REMARKS/ARGUMENTS

After the foregoing Amendment, claims 1-5, 7, 9, 11, 12, 14-16, and 18-25 are currently pending in this application. Claims 1, 9, 14, and 23 have been amended to clarify certain features of the present invention. Applicants submit that no new matter has been introduced into the application by these amendments.

Claim Rejections - 35 USC §102(e)

Claims 1, 2, 4, 5, 7-9, 11-14, 16, and 18-25 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0158836 to Venkatesh et al. (hereinafter "Venkatesh").

Claims 8 and 13 have been canceled, therefore the 35 U.S.C. §102(e) rejection of these claims is rendered moot.

Claim 1, which is representative of the independent claims 9, 14, and 23, recites intercepting an initial IRP before the IRP reaches a file system associated with the IRP and implementing the method above a Basic Volume Manager.

The Examiner interprets the "volume filter" of claim 1 as a "data mover" in Venkatesh. Applicants respectfully disagree for the following reasons. To intercept an IRP before it is received by an associated file system and to implement the volume filter above a Basic Volume Manager, the volume filter would need to be implemented outside of the native operating system. For example, the volume filter

could be implemented as a driver and would need to communicate to the operating system through some mechanism like an I/O manager.

Venkatesh's data movers are computers (paragraph 0054; "Each of the data movers 115, 116, 117 is a high-end commodity computer") implemented as part of a distributed network's file server (paragraph 0010, Figure 9). The claimed volume filters are distinguishable from the data movers of Venkatesh, in that a high-end commodity computer could not be implemented above a Basic Volume Manager, nor could it intercept an input/output request packet before it is received by the associated file system. Figure 9 illustrates that the file system (144) is part of the data mover (115). The data mover cannot act independently of the file system in Figure 9, and therefore cannot perform the functions of the claimed volume filters. Even if it were interpreted that software implemented and replicated on each data mover computer of Venkatesh was equivalent to the claimed volume filter, Venkatesh recites that a request is forwarded to the data mover from the meta file system manager.

Software implemented in Venkatesh's data movers does not intercept IRPs before they are received by the associated file system. Venkatesh describes three file systems, and their respective relation to the meta file system manager. In paragraph 0061, describing the network file system (NFS), a client makes a request for access to a file.

“A client first issues an NFS lookup request including a path to a file and the filename for the file to be accessed. The lookup request returns a file handle for a file entry corresponding to the file. The client uses the file handle in subsequent requests for access to the file. These subsequent request are interpreted by the NFS routines 141 and forwarded to the meta file system manager 146.” (emphasis added).

Clearly, the NFS accesses the request before the meta file system manager.

Paragraph 0062 describes the operation under the Common Internet File System (CIFS). “The CIFS server routines 142 receive the CIFS request from the client and forward the request through the Virtual File System (VFS) to the meta file system manager 146.” Again, the CIFS accesses the request before the meta file system manager and the VFS. A similar scenario describing the UNIX file system (UxFS) is described in paragraph 0074.

Venkatesh does not disclose a volume filter as claimed. Venkatesh does not disclose intercepting an input/output request packet before it reaches the associated file system. Venkatesh does not disclose implementing a meta file system above a Basic Volume Manager as claimed. Therefore, claim 1 is patentable over Venkatesh for the reasons presented above.

Claims 2, 4, 7, 9, 11, 12, 16, 18-22, 24, and 25 are dependent upon claims 1, 9, 14, and 23, respectively, which the Applicants believe are allowable over the cited references for the same reasons provided above.

Applicant: Chimitt et al.
Application No.: 10/706,345

Based on the arguments presented above, withdrawal of the 35 U.S.C. §102(e) rejection of claims 1, 2, 4, 5, 7, 9, 11, 12, 14, 16, and 18-25 is respectfully requested.

Claim Rejections - 35 USC §103

Claims 3 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Venkatesh in view of well known art.

Claims 3 and 15 are dependent upon claims 1 and 14, respectively, which the Applicants believe are allowable over the cited references for the same reasons provided above.

Based on the arguments presented above, withdrawal of the 35 U.S.C. §103(a) rejection of claims 3 and 15 is respectfully requested.

Conclusion

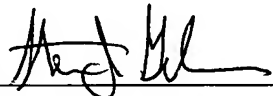
If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

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In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1-5, 7, 9, 11-12, 14-16, and 18-25, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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